

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-62 have previously been cancelled.

63. (Previously Presented) A load sensing and braking system for a vehicle having a vehicle body suspended on one or more axles by a pressurized gas suspension unit whose gas pressure is varied in dependence on the vehicle load, the load sensing and braking system comprising:

a variable throttling valve having a valve member movable between a minimum and a maximum throttling position to control the flow of a brake operating fluid to a brake actuator of the one or more axles for applying braking force to at least one wheel of the vehicle;

a pressure sensor for detecting the gas pressure in the suspension unit; a first air bag responsive to the gas pressure in the suspension unit and operable to urge the valve member towards the minimum throttling position;

a pressure regulator for supplying a reference fluid pressure at one of a plurality of predetermined reference fluid pressures;

control means operable to select one of said plurality of predetermined reference fluid pressures on the basis of the sensed gas pressure in the suspension unit; and

a second air bag responsive to said selected one of said plurality of reference fluid pressures and operable to urge the valve member towards the maximum throttling position.

64. (Currently Amended) The load sensing and braking system according to claim 63, wherein ~~the pressure regulator is operable to supply first and second reference pressures, and the pressure sensor provides a first output when the sensed gas pressure is below a predetermined threshold and a second output when the sensed gas pressure is above the predetermined threshold, and the control means is operable to provide the select a first reference fluid pressure, from among the plurality of predetermined reference fluid pressures, that is provided to the second air bag when the pressure sensor provides the first output[[],] and to provide the select a second reference fluid pressure, from among the plurality of predetermined reference fluid pressures, that is provided to the second air bag when the pressure sensor provides the second output.~~

65. (Currently Amended) A load sensing and braking system for a vehicle having a vehicle body suspended on one or more axles by a pressurized gas suspension unit whose gas pressure is varied in dependence on the vehicle load, the load sensing and braking system comprising:

a variable throttling valve having a valve member movable between a minimum and a maximum throttling position to control the flow of a brake operating fluid to a brake actuator of the one or more axles for applying braking force to at least one wheel of the vehicle;

a pressure sensor for detecting the gas pressure in the suspension unit;

a first air bag responsive to the gas pressure in the suspension unit and operable to urge the valve member towards the minimum throttling position;

a pressure regulator for supplying a reference fluid pressure at one of a plurality of predetermined reference fluid pressures;

control means operable to select one of said plurality of predetermined reference fluid pressures on the basis of the sensed gas pressure in the suspension unit; and

a second air bag responsive to said selected one of said plurality of reference fluid pressures and operable to urge the valve member towards the maximum throttling position;

wherein a restoring force of the second air bag increases as the valve element member approaches the minimum throttling position.

66. (Currently Amended) A load sensing and braking system for a vehicle having a vehicle body suspended on one or more axles by a pressurized gas suspension unit whose gas pressure is varied in dependence on the vehicle load, the load sensing and braking system comprising:

a variable throttling valve having a valve member movable between a minimum and a maximum throttling position to control the flow of a brake operating fluid to a brake actuator of the one or more axles for applying braking force to at least one wheel of the vehicle;

a pressure sensor for detecting the gas pressure in the suspension unit;

a first air bag responsive to the gas pressure in the suspension unit and operable to urge the valve member towards the minimum throttling position;

a pressure regulator for supplying a reference fluid pressure at one of a plurality of predetermined reference fluid pressures;

control means operable to select one of said plurality of predetermined reference fluid pressures on the basis of the sensed gas pressure in the suspension unit; and

a second air bag responsive to said selected one of said plurality of reference fluid pressures and operable to urge the valve member towards the maximum throttling position;

wherein the pressure regulator is operable to supply first and second reference pressures, and the pressure sensor provides a first output when the sensed gas pressure is below a predetermined threshold and a second output when the sensed gas pressure is above the predetermined threshold, and the control means is operable to provide the select a first reference fluid pressure, from among the plurality of predetermined reference fluid pressures, that is provided to the second air bag when the pressure sensor provides the first output[[],] and to provide the select a second reference fluid pressure, from among the plurality of predetermined reference fluid pressures, that is provided to the second air bag when the pressure sensor provides the second output; and

wherein a restoring force of the second air bag increases as the valve element member approaches the minimum throttling position.

67. (Previously Presented) A vehicle including a load sensing and braking system according to claim 63.

68. (Previously Presented) A vehicle including a load sensing and braking system according to claim 64.

69. (Previously Presented) A vehicle including a load sensing and braking system according to claim 65.

AMENDMENTS TO THE DRAWINGS:

The attached replacement drawing sheet (i.e., Sheet 6 of 6) includes an amended Fig. 5, which has been amended to include a control element 131 associated with pressure regulator 29.

Attachments: One drawing sheet including an amended Fig. 5.